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ABSTRACT

This paper discusses the origin of the additional cost factor as a way of calculating a district's compensatory education categorical aid units. This method helps to determine the amount of State aid to the district on the basis of the number of eligible students within a special needs category. The potential effects of State compensatory education on local school districts are then discussed in light of the fact that neither legislation (The Public School Education Act of 1975) nor the guidelines give specific reference to State goals or objectives for remedial and preventive programs. Finally, alternative methods of determining program costs and specific criteria for allocating funds are suggested to account for variations in the level of remediation needs in different districts. The exemplary program model, the cost analysis process, and some costs analysis and formula alternatives are discussed. (Auth/HC)

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STATE COMPENSATORY EDUCATION IN NEW JERSEY: THE ADDITIONAL COST FACTOR

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INTRODUCTION

Compensatory education funds were only 6% of 1977-78 state aid to education in New Jersey, but they may become the most important category of aid as minimum standards for pupil proficiency and the "thorough and efficient" mandate of the Public School Education Act of 1975 are implemented. State compensatory education funds are allocated for financing remedial and preventive reading and math programs in New Jersey's school districts. A determined assault on basic skills deficiencies could result in a substantial increase in compensatory education costs. There is already concern among some legislative staff that recent increases in the cost of the program may be the beginning of a pattern.

The amount of State compensatory education funds allocated to each school district is determined by a mathematical formula. The New Jersey State Department of Education calculates the number of students in each district who are eligible for compensatory education services. The number of eligible students is multiplied by a constant, the additional cost factor, to determine the district's compensatory education categorical aid units. Finally, the district's compensatory education categorical aid units are multiplied by the State average net current expense budget per pupil (the net cost of educating a regular student) for the prior year.

Calculation of Compensatory Education Allocation:

(A) Categorical Aid Units	(B) Additional Cost Factor	(C) State Average Net Current Expense Budget Per Pupil	(D) Amount of State Aid to District
1,000	.11	$1506	$165,660

Equation: (A x B) x C = D

Serious questions have been raised recently about the adequacy of one component of the equation, the additional cost factor. It appears that the additional cost factor bears little relation to the actual costs of providing a thorough and efficient

compensatory education. The origin of the additional cost factor, the potential effects of State compensatory education on local school districts, and alternative methods of determining program costs are the subjects of this paper.

SCHOOL FINANCE REFORM AND SPECIAL NEEDS STUDENTS

School finance reform efforts over the past decade have emphasized that certain classifications of students have special needs and cost more to educate than regular students. For some children the problem is a physical, mental, or emotional disability that interferes with their ability to learn. For others it is a matter of readiness, or limitations and differences in inherent learning capacity. A third group labors under an array of negative environmental factors which it has been generally agreed, inhibit normal learning.

Educational programs that service special needs students are more expensive to operate than programs for regular students. The number of students a teacher can effectively work with is generally much smaller than the size of a regular class, so 20 special needs students could cost two, three, or four times as much to educate as a comparable group of regular students. Staffing costs for special educational programs are also higher than normal. Specific types of professional training are often required and personnel in those classifications are paid more than regular classroom teachers. In addition, some special needs students require the services of supportive staff such as therapists, child study teams, etc., as well as costly educational materials and equipment.

The responsibility for financing programs for special needs students rests with the states. The Federal government grants funds to states in specific special needs classifications, or categories, but the Federal role has been to support and augment state efforts rather than supercede them.

Educators and legislators in various states use a number of methods or formulas, to measure the extent and degree of educational need, and to allocate funds for special educational programs. The formulas, or methods, vary from one special needs category to another within a state according to the nature of the need in question and the amount of state aid allocated for each eligible pupil. There is also considerable variation in

both the formulas and per student allocations for the same category from one state to another. All of the variation is understandable. Each special needs category is focused on a specific problem area and the costs of providing dissimilar services, e.g., serving the neurologically impaired as opposed to socially maladjusted, are bound to differ. Also, State educators and legislators define the services that will be financed within a special needs category and the proportion of local program costs State aid systems will absorb in terms of the political, social, economic, and educational characteristics of their particular states.

Compensatory education funds are a non-equalizing category of State aid which neither increase nor decrease expenditure disparities between school districts. School finance analysts usually separate categorical aid from school expenditures for regular students, because the amount of aid a district receives is a function of the number of special needs pupils in the district rather than its tax base or property wealth.

STATE COMPENSATORY EDUCATION IN NEW JERSEY

State compensatory education in New Jersey is alleged to have evolved out of a need to provide Title I type services for children who met Title I low income eligibility criteria but were not enrolled in programs. The Federal government had underfunded the Title I category and, required that funds be allocated to specific school buildings where there were high concentrations of low income pupils. As a consequence, poor students in predominantly moderate and middle income schools did not receive any services. State compensatory education remained an appendage to Title I until it was written into the Public School Education Act of 1975 and became a part of New Jersey's effort to define and implement a thorough and efficient education.

Dale Mann (1977),has identified three additional reasons that compensatory education may have been included in the Thorough and Efficient Law. According to Mann, the desire to: (1) serve children who needed special assistance, but were not from low income families; (2) continue assistance to urban centers; and (3) pinpoint allocations on needy children; had considerable influence on the content of the new law.

The adoption of the minimum standards provision and the recent development of a combination economic need and student achievement based allocation formula, by the State Department of Education (SDOE), suggests that State compensatory education may have found its niche. The program, through its linkage to the T&E process, was divorced from Title I and given its own identity. On the surface, tying compensatory education to remedial and preventive education appeared to be the answer to one of the most pressing questions surrounding the T&E process: What was to be the source of funding for the State mandated remedial programs?

The Additional Cost Factor

School districts are usually awarded funds for each eligible student within a special needs category according to a predetermined formula. In New Jersey, each of the 17 special needs classifications (categories) has been assigned an additional cost factor which is used to calculate State aid. These are shown in Table I. An example of how a district's categorical aid entitlement is derived is included in Appendix B.

Table I

Additional Cost Factors
for
Categorical (Special Needs) Programs in New Jersey

Visually Handicapped	...	1.91	Socially Maladjusted	...	0.95
Auditorially Handicapped	...	1.38	Trainable	...	0.95
Orthopedically Handicapped	...	1.27	Chronically Ill	...	0.85
Emotionally Disturbed	...	1.27	Perceptually Impaired	...	0.85
Multiply Handicapped	...	1.27	Educable	...	0.53
Communication Handicapped	...	1.06	Approved Local Vocational Education	...	0.53
Neurologically Impaired	...	1.06	Bilingual Education	...	0.16
			State Compensatory Education	...	0.11

Approved Private School Tuition ... 1.0 plus the additional cost factor of the handicap.

Supplementary and Speech Instruction .. 0.09 based on the number of pupils actually receiving such instruction in the prior school year.

The current additional cost factor for the orthopedically handicapped in New Jersey is 1.27 (127%). If the average net cost of educating a regular student in any given year is $1,000, the additional cost of educating an orthopedically handicapped student is $1,270. The total average net cost of educating an orthopedically handicapped student for the given year is $2,270.

The current additional cost factor for State compensatory education is .11 (11%), a figure which a number of educators feel is unrealistically low. When the .11 factor is applied to the $1,000 average net cost of educating a regular student, the additional cost allowance for a compensatory education student is $110 and the total cost for the year is $1,110.

The additional cost factor for compensatory education in New Jersey was developed as a start up device when State compensatory education was initiated to supplement Federal Title I aid and was used for the first time in 1974. The calculations that produced the cost factor were based on an estimated count of eligible students taken from 1972 data and outdated projections. It is believed that the State Department of Education thought the Legislature would be receptive to funding the new program in an amount that approximated half of the current Title I allowance for each eligible low income student. The Title I allowance that year was $300 per student, so the allocation for the State program was adjusted until it equalled approximately $150 per student. The $150 allowance for compensatory education was 11%, or .11 of the prior year's State average net cost of educating a regular student, so .11 became the new compensatory education cost factor. Mann(1977) suggests the cost factor was developed out of a desire to replace money schools had received for low-income students under the old Bateman plan.

The most significant aspect of the development of the additional cost factor was that anticipated or available resources determined the amount of money awarded for each eligible student. The actual costs of providing specific services were not given any consideration. If it had all been done properly, the cost factor would have been the

result of an analysis of the amount of money it would take to achieve the goals and objectives of compensatory education. A cost analysis of the services to be offered students would have produced a cost factor, and the cost factor would have enabled the State Department of Education to give the Legislature an accurate estimate of the total funds the program required. What appeared to happen was the reverse: the Legislature determined the funding level, the cost factor evolved out of the level of funding, and the amount of the per pupil allowance defined what services would be offered to students.

As a result, low and moderate wealth school districts were limited in the type and scope of programs they could design by the funding levels the cost factor generated. The total amount of compensatory education funds a district received led some to believe the programs were adequately financed, but when the aid was apportioned among all of the eligible students it did not amount to very much. The initial per student allowances were approximately $150; in most districts this amount purchased little more than the services of a teacher aide. The 1978-79 allowance is approximately $182, but it does not buy more than the original $150. The $32 increase merely offsets the effects of inflation. For example, in 1977-78, a school district administrator who wished to provide students a full period of remedial instruction each day for a year with a trained remedial reading teacher or specialist would not be able to finance an effective program on that year's $165 per pupil compensatory education allowance unless he chose to overload remedial classes. Assume that the school day was divided into seven periods, and a contract with the local teachers union placed the following limits on the staff workload:

(1) No teacher will be assigned more than four instructional periods per day.

(2) Each teacher will be entitled to two preparation periods per day.

(3) Each teacher will be entitled to one lunch period per day.

If the teacher's salary was at the State average, $15,917, class size would have to be set at 24 students for each of the four periods of instruction. Eliminating a preparation period would reduce class size to 19 students, but that would still be too high a number to provide effective remedial education. Many educators would argue that two preparation periods are essential and eliminating one would contribute more to inefficiency and be counterproductive.

One interpretation of the history of State compensatory education attributes the unscientific development of the cost factor to the SDOE's need to rush aid funds to the school districts in the initial year. This might explain why the cost factor was used during the first year of funding, but it does not explain why the .11 figure has remained in use to this day. It is interesting to note that the SDOE did put considerable effort into creating a new formula for calculating student eligibility for compensatory education, but the determination of the number of students in a district who are eligible for funding is only one of the components in the allocation equation used to compute a district's compensatory education entitlement. The only other major component in the equation that has not been updated is the additional cost factor. On the surface, the revision of one component in the equation, might give observers the impression that all of the components used to calculate a district's compensatory education funding level had been similarly revised. However, the SDOE chose to leave the original additional cost factor intact.

The SDOE may not want to modify the .11 figure because a larger cost factor will cause a substantial increase in educational expenditures, particularly State aid. It is reasonable to estimate that a determined assault on the problem would require funding at three times the amount of the current aid level. Another consideration might be that a substantial portion of the funds would go to urban districts where they might be diverted away from the educational system into other municipal coffers. A State mandated maintenance of effort requirement would guarantee that increases in State aid

would not be matched by decreases in municipal contributions, but even that might not be sufficient to allay concern. Urban schools are generally thought to be poorly managed and staffed and some people believe that increasing education aid to the cities is merely throwing good money after bad.

The problem with this argument is that it treats two separate issues as one and suggests that the way to improve poor fiscal management is to give the district less money to mismanage. The fact that this "solution" penalizes students by depriving them of resources is somehow rationalized or overlooked altogether. The State's first priority should be to insure that a program or service is adequately funded. Once that is done, the management problem can be addressed.

Compiling a list of the possible reasons for SDOE's inaction would be a long and purely speculative process. What is most important is that the Department may have failed to carry out a major professional responsibility. It was not the SDOE's role to second guess the Legislature, if that was what occured, and define and cost out educational needs in relation to what the political arena would allow or support. At some point the Legislature should have been advised that a Statewide program of remediation would cost more money than the .11 factor could generate. The Department's failure to address this issue might have been legitimate prior to the enactment of the Thorough and Efficient Law when State compensatory education seemed to lack focus and a clear purpose, but the Law has been in operation for over two years. It is time the SDOE examined compensatory education cost differentials, determined the amount of money it will take to achieve the program's objectives, and developed a new, more adequate additional cost factor.

State Compensatory Education and the Local District

The broad purpose of the State compensatory education program is clear, but the performance outcomes the program seeks to achieve are not. The 1977 guidelines state that supplemental remedial and preventive programs are to be established, that a specific target group is to receive the services, and that the SDOE will monitor district programs as well as conduct status and progress studies every two years. Neither the enabling legislation (The Public School Education Act of 1975), nor the guidelines contain any specific references to State goals or objectives. There is no mention of standards or criteria against which district level programs will be evaluated, or objectives which define what results the State expects school districts to accomplish.

The SDOE's rationale for not exercising more control and being more specific about what the State expects may be based on the belief that a stronger State role would prevent school districts from designing programs that addressed local problems. However, since compensatory education programs in all districts are focused on remedial and preventive efforts in the areas of communications and computational skills, stronger direction and controls by the SDOE are warranted.

For example, the differences in content, method, and technique between communications skills programs across the State do not prevent the SDOE from doing a cost analysis and developing an accurate and adequate additional cost factor. There are more similarities in the programs than differences and the major characteristic they have in common is their focus on sub-areas within the larger field of communications skills. All of the programs need staff who are qualified to teach communications skills. The SDOE could determine the minimum qualifications necessary for communications skills remedial instruction staff and use the average State salary for a comparable level of training as a cost guide. Another option is to develop a formula or method that adjusts salaries at each level and classification according to area cost differentials.

In 1977-78, 92% of New Jersey's school districts received compensatory education funds for approximately 380,000 students. The State mandated remedial programs in which the students were enrolled varied in both content and structure from one school district to another. In some cases students were removed from their regular classes for special instruction and in others remediation was conducted in the classroom.

The SDOE's procedures are a strong endorsement of local control, but there is a disturbing presumption about compensatory education funds implicit in the Department's relationship to local districts. The implication, intended or not, is that the per pupil allowances are adequate to finance any of the range of remedial services a student might require. Each eligible student generates the same dollar amount for all school districts across the State, so the per student grants are uniform. Despite the uniformity of the student grants there are built in inequities: The per student allowances do not purchase the same level and quality of service for all students in all districts. There are hidden benefits, as well as detriments, operating at the local level which affect the quality of remedial services.

School districts differ from one another in terms of the property wealth base which yields local revenues, the amount of money spent on staff, equipment, instructional materials, etc., and some qualitative aspects as well. Qualitative aspects such as staff qualifications and competency, the effect on staff of the positive or negative prestige and status variables associated with a particular school district or community, and the attitude of the district's educators towards the community and its students are equally important distinctions. The relationship between the schools and the municipal government as well as the size and scope of non-school expenditures are particularly important, since they may affect the level of municipal financial support for education.

There are other forces including non-school related variables, that also affect how well or how poorly an educational system functions and exert some influence on

student achievement. The degree to which all of these elements are present or absent in a school system is one measure of the differences, or disparities, between school districts. These qualitative and quantitative differences create inequities that affect students. The regular school program in a low quality district does not offer a student the same educational opportunity as the regular program in a high quality district. These disparities also affect a district's supplemental programs such as compensatory education.

The fact that inequities and disparities exist between school districts underscores the need for an additional cost factor or an alternate formula based on the actual cost of remedial services. Wealthy districts, if they choose to, can draw on a larger pool of local resources to finance programs in excess of the State aid allowance, but poor districts are not so fortunate.

Under the best circumstances, the child in the property poor, low expenditure district will get only what the State aid allowance will buy, and in some instances he may get even less. If the municipality, out of a desire to lower taxes or finance non-educational municipal services, reduces its contribution to the school budget, the district is forced to use the categorical aid to make up the difference. When this occurs, special programs are either reduced or eliminated and categorical aid funds are applied to the cost of the regular school program.

There is a strong possibility that, in general, only the wealthy high quality, districts will be able to demonstrate substantial gains and improvements in pupil proficiency if the .11 factor is left intact. First, these districts will tend to have fewer students who need remediation, so the most competent staff and other special resources can be concentrated. Program costs in excess of State aid can be absorbed into the regular budget with less difficulty and qualitative benefits from the regular school program will accelerate the rate pupil proficiency improves. However, it is doubtful that even high quality school districts can actually be held accountable for pupil growth.

Legally, the SDOE may be "skating on thin ice". The thorough and efficient law mandates remedial programs and gives the Commissioner broad powers of review, control, and sanction over district plans. It is also the responsibility of the Commissioner, through the SDOE, to recommend any needed revisions of additional cost factors. An inadequate additional cost factor is inconsistent with both the spirit and intent of the thorough and efficient law. A school district using a proper cost analysis could easily demonstrate that the amount of money generated by the .11 factor was not enough to pay for the required remedial services. The lack of funds then becomes a constraining factor that prevents the district from achieving T&E goals. The school district could petition the Commissioner for the unreimbursed cost of remedial services, and if the request for additional categorical aid was denied, the district could file suit in the State Court.

Low and moderate wealth districts with large numbers of pupils who require remedial services should be among the first to challenge the adequacy of the current cost factor. They have the most to gain if a new factor or formula is introduced and the most to lose if the .11 measure is left intact. Budgets in low wealth districts are seldom, if ever, flexible enough to absorb additional unreimbursed costs, so adequate State aid is a necessity. There is a remote possibility that the SDOE's intent is to encourage the development of local cost factors at the school district level, or to wait for local pressures to build up before taking any action. The Department's concern with allowing districts program "flexibility" and its failure to study and revise the outmoded .11 cost factor can be interpreted to give some credence to these speculations. An even more disturbing consideration is the possibility that compensatory education may be one of SDOE's lowest educational priorities, and the cost factor has not been revised for that reason.

RECOGNITION OF COST DIFFERENTIALS: SOME ALTERNATIVE METHODS OF DETERMINING PROGRAM COSTS

The SDOE may have to develop more than one additional cost factor and a number of alternate funding plans as well to meet the spectrum of needs among New Jersey school districts. Districts in which less than 20% of the students need remediation may benefit from a "compensatory" program that is supplemental to the regular school program, but in districts where the number of students who achieve below the minimum standard is much greater a complete revision of the regular school program may be necessary. The SDOE could also choose to develop cost factors geared to the severity of a student's academic need and weight pupils according to their scores on a Statewide assessment test. There are a number of alternatives that can be used as a basis for developing a new formula, but each of them will require the SDOE to make some specific program decisions before the actual costs of providing services can be determined. Goals, objectives, underlying assumptions, and conditions must be taken into account.

The point here is that variations in the level of remediation needs in a district may require the application of different cost factors and that specific criteria for allocating funds must be developed. The most scientific method of determining costs and devising one or more formulas that allocate funds to school districts is the cost analysis process. Cost analysis and several alternative formulas for compensatory education programs are discussed in the following sections.

The Exemplary Program Model

One method of analyzing and developing cost differentials for special needs programs is the "exemplary program" or "good practice" model used in a series of studies by the National Educational Finance Project (1973). This approach examined existing, outstanding programs in a number of states, used their costs as indicators of what

special needs programs should cost, and established a "reasonable range" scale that weighted pupil costs for different programs. The suggested reasonable range for compensatory education remedial reading in grades 1-6 was 1.60 to 2.40 or, stated as an additional cost factor, .60 (60%) to 1.40 (140%).

There are a number of weaknesses in the exemplary program or good practice model. One of the underlying assumptions in this approach is that all programs within a given special needs category in a state are nearly identical in design, staffing, goals and objectives, instructional content and technique, and the results they seek to achieve. Another weakness is that an exemplary program in a good practice district might be the result of adding on to an already superior and expensive regular school program. Such a district might be a good model to copy because of the quality of its staff, management, etc., but a poor model in regard to the additional cost of special programs. Hidden costs for aspects of the regular school program that indirectly enhance the quality and outcomes of the special needs program would not be identified through an additional cost analysis of the special program alone.

The most glaring weakness in the exemplary program model is that it is an analysis of existing, rather than desired programs. Existing programs reflect existing funding constraints and are generally poor indicators of what could occur under different, more favorable conditions. This model would be particularly unsuitable for analyzing the cost of New Jersey's compensatory education system. The inadequacies in the current cost factor, hence the questionable funding level of existing programs indicates the need for a more thorough approach.

The Cost Analysis Process

Stated simply, a cost analysis should be a compilation of all of the direct and indirect costs related to achieving a specified result. It does not matter whether a commodity is being produced or a service is being offered: The basic process is the same.

Significant cost groupings are isolated into categories called cost centers. Cost centers must be minutely defined, mutually exclusive to avoid overlapping, and cover all activities. Direct cost centers are used to classify an expenditure that can be charged totally to the specific program or agency in a single category and indirect cost centers are used to classify shared costs that must be prorated. For example, a cost analysis of a special needs project located in the same building with regular classes in a school district would separate salaries, travel, books and supplies (direct costs) for the project from space, utilities, and administrative overhead (indirect costs).

Another method, one which is often used by social agencies, is to separate costs according to their relationship to the particular agency's functions into service activities and support activities. In a child guidance center service activities might include salaries and other costs of therapists and the diagnostic staff only. Administrative and clerical salaries as well as staff development, planning, and research costs would be grouped under support activities. There are a variety of classification methods in general use, but they have in common the intent to identify and put a dollar value on all of the activities related to achieving a specific result.

Most analysis models also separate capital, start up, or one-time costs from annual operating costs. The expenses associated with operating and maintaining a program in its original design for a year are considered annual operating costs. Expenditures for items such as facilities, equipment, materials which can be used over a period of time, program planning and development, and initial staff training are one-time costs which can distort an analysis if they are not treated separately.

For purposes of discussion it is possible to describe the cost analysis of a special needs educational program as a relatively simple process. An actual cost analysis would be much more complex than the oversimplified discussion model that follows.

Once the decision is made to develop a program or offer a service that addresses an educational problem, cost analysis should become an integral part of program planning and development. The ideal cost analysis should be based on the goals and objectives of the specific program. The goals are broad statements of intent, but the objectives are more specific, particularly if they are stated in a manner similar to the Management by Objectives (MBO) format. The objectives are precise descriptions of the activities and processes that should occur in the program, as well as the results, or outcomes, that are expected to be achieved. However, the goals and objectives alone do not provide enough information for planners to begin a cost analysis. An interim step is needed.

Any special conditions or underlying program assumptions that have cost implications must be taken into account at this point. For example, a planning team might conclude that only personnel with a specific level of formal training were capable enough to accomplish the program's objectives. In this instance the planning team has acted on an assumption and prescribed a condition that will have an affect on salary costs. Other assumptions and conditions might also affect salary costs. The planning team might estimate that a staff member could not be effective if he worked with more than five students an hour for more than five contact hours a day. If the team then decided to limit class or group size and staff workload, the action would have cost implications.

Goals, objectives, underlying assumptions, and conditions that are a result of the program planning are the bases for determining the content and funds required in each cost center or cost category. The listing of cost centers in an analysis will be as comprehensive or as limited as the program design allows. One analysis might contain supplemental cost centers for space, staff development, attending professional meetings, special staff materials, non-instructional supportive services, etc. while another might include only basics such as instructional staff salaries, fringe benefits, and consumable

educational materials. The inclusion or omission of cost centers depends on the goals and objectives of the program and which factors the planning team considers important.

Some Cost Analysis and Formula Alternatives

The alternatives presented in this section are intended to serve only for purposes of illustration and to that end the processes involved have been oversimplified. Actual cost analysis, development of additional cost factors, and design of alternate formulas would involve a great deal more detail and effort than the following examples suggest. The purpose here is to present a few of the types of options available to the State Department of Education.

Example I. The purpose of this cost analysis was to develop an additional cost factor for funding the annual operating costs of supplemental remedial reading programs. The planning team defined goals and objectives and acting on a series of assumptions decided that the use of an additional cost factor was appropriate for districts where a maximum of 20% of the students were below the statewide minimum standard and students are removed from regular classes for remedial instruction. Students were not weighted according to the severity of their reading problems, but were classified in four mastery level groups below the minimum standard. Another series of conditions specified that each student should receive a minimum of one, forty-five minute period of reading instruction per day, per week for one year in a class no larger than ten students. Instruction was to be provided by a certified remedial reading teacher whose seven period school day would be divided into four instructional periods, two preparation periods and one lunch period. The team after careful study, estimated that each remedial student would require approximately $10.00 per year in consumable supplies and books that could not be reused. In another decision, the sum of $2.00 per student was set aside for mid-year and end of the year testing and evaluation.

The team identified three cost centers for the analysis: salary, books and supplies, and testing and evaluation. The State average salary for a remedial reading

teacher (special services personnel) was used as a base, and the special conditions which limited class size, and the teacher's instructional time and caseload during the year were translated into dollar amounts. The information was used to compute a yearly per student cost which was $409.50 or 27% more than that year's State average net cost of educating a regular student. The additional cost factor for the supplemental remedial reading program was computed as .27 (Table 2).

Table 2

REMEDIAL READING PROGRAM (Example I)

STUDENTS SERVED: All students below State minimum standard.

SERVICE PROVIDED: One, 45 minute period of reading instruction per day for one school year.

CONDITIONS: Certified remedial reading teacher
4 classes per day
10 students per class
(40 students per teacher, per year)

ANNUAL OPERATING COSTS FOR 40 STUDENTS:

Remedial Reading Teacher, 10 mos.	$15,900.00
Books and Supplies, $10.00 x 40 students	$ 400.00
Testing and Evaluation, $2.00 $2.00 x 40 students	$ 80.00
	$16,380.00

Per Student Cost:

$$\frac{\$16,380}{40} = 409.50$$

ADDITIONAL COST FACTOR: .27

State Average Net Cost (regular student) = $1,500.00

Remedial Reading Program Cost = 409.50

Additional Cost Factor Calculation:

$$\frac{\$\ 409.50}{\$1500.00} = .273$$

Example II. For a remedial reading program conducted outside of the regular class the planning team was directed to use a cost analysis and determine a formula and additional cost factors that weighted students according to the severity of their skills problem. The reading scores of students who were below the minimum standard on a state wide assessment test were clustered into four mastery level groups and then weighted according to what the team had decided was the appropriate teacher-student ratio (class size) for the specific group. The minimum proficiency standard on the reading section of the statewide assessment test had been set at 65% of the answers correct. The team used the mastery group (level I) closest to the 65% cutoff score as a base for determining the class size and severity weightings for all remedial students (Table 3). The additional cost factor for each of the mastery groups was established after an analysis of the actual cost of implementing the recommended teacher-student ratio (class size).

Table 3

Additional Cost Factors For Remedial Reading Students
At Four Mastery Levels Below Minimum Proficiency Standard

MASTERY GROUP	Class Size	Severity Weighting	Additional Cost Factor
Level I 50% - 64% Correct Answers	15	1.00	.19
Level II 35% - 49% Correct Answers	12	1.25	.23
Level III 20% - 34% Correct Answers	[illegible]	1.67	.33
Level IV 0% - 19% Correct Answers	6	2.50	.50

The plan provided the State Education Department with two funding alternatives. Alternative A: used a weighted student count. State aid to school districts consisted of the State average salary of one reading teacher for every 60 weighted students and a $5 allowance to cover testing, materials, etc. for each weighted student (Table 4). Alternative B: used the actual number of students and the additional cost factor at each mastery level to calculate State aid. The State average net cost per pupil was multiplied by the additional cost factor for each mastery level to obtain a per student cost. The per student cost was multiplied by the number of students in a district at the particular mastery level. The product of these calculations was expressed in dollars and became the district's State aid entitlement (Table 5).

Table 4

Calculation of State Aid For Remedial Reading
Using A Weighted Student Count For Each Mastery
Level Below Minimum Proficiency Standard (Alternative A)

Mastery Group	Unweighted Student Count	Severity Weighting	Weighted Student Count	Teachers Per 60 Weighted Students
Level I 50% - 64% Correct	288	1.00	288	4.80
Level II 35% - 49% Correct	240	1.25	300	5.00
Level III 20% - 34% Correct	120	1.67	200.4	3.34
Level IV 0% - 19% Correct	8	2.50	20	0.33
TOTALS	656	----	808.4	13.47

State Aid Allocation. Alternative A: $218,215.00

(1) 13.47 teachers x $15,900 ..... $214,173.00

(2) 808.4 students x $5 ..... $ 4,042.00

Total State Aid $218,215.00

Table 5

Calculation of State Aid For Remedial Reading Using Actual Student Count And Additional Cost Factors For Each Mastery Level Below Minimum Proficiency Standard (Alternative B)

Mastery Group	Student Count	Teacher-Student Ratio	Additional Cost Factor	Per Student Cost	State Aid Sub-Total
Level I 50% - 64% Correct	288	4.80 (1:60)	.19	$277.00	$79,776.00
Level II 35% - 49% Correct	240	5.00 (1:48)	.23	$343.25	$82,380.00
Level III 20% - 34% Correct	120	3.33333 (1:36)	.30	$453.67	$54,440.40
Level IV 0% - 19% Correct	8	0.33333 (1:24)	.50	$674.50	$ 5,396.00
TOTALS	656	13.46666	---	---	$221,992.40

State Aid Allocation, Alternative B: $221,992.40

(1) Sum of State Aid Sub-Totals = Total State Aid

(2) 13.46666 teachers x $15,900 ..... $214,120.40

(3) 656 students x $12 ..... $ 7,872.00*

Total State Aid $221,992.40

*Books, supplies, testing.

Example III. The purpose of this cost analysis was to develop a system for funding remedial reading and math education in districts where more than 20% of the students were below the Statewide minimum standard. The planning team defined goals and objectives but decided the use of an additional cost factor was not appropriate and students should not be removed from regular classes. The team had concluded that when a significant number of students in a district were below the minimum standard it was an indicator of serious problems in the regular school program. It was also decided that removing large numbers of students from regular classes for remedial instruction was counterproductive, especially when 40% to 50% of the enrollment was involved. The team, instead, sought to develop a funding system that enabled districts to raise the quality and efficiency of the regular school program. They decided to reduce the size of all academic classes for below standard students and build remediation into a substantial portion of regular school program.

The planning team's task was to determine the optimum staff-student ratio, (class size) and the amount of money a district(s) would require to implement the plan. Technical assistance, training, program monitoring, audits, and evaluation of the district's revised program would be the responsibility of other State Education Department sections.

Alternative C (Table 6) is an attempt to reduce class size at the elementary level. This involves some relatively simple mathematics because all elementary classes in this district are self-contained. Reducing class size at the secondary level is a much more complex and difficult exercise, but it could be done. The planning team could decide on a specific number of academic course areas where remediation would be integrated with the curriculum and taught in the regular class. The formula would be designed to reduce class size only in the designated course areas. Alternative D (Table 7) is an example of a format that could be used at the secondary level, subject to review and any necessary revisions after a trial run.

Table 6

ELEMENTARY LEVEL, SELF-CONTAINED CLASSES (ALTERNATIVE C)

PROGRAM TYPE: Class size reduced for students below minimum standard, all remediation conducted as part of regular classes. Students below minimum standard not weighted for severity.

CONDITIONS: Students below minimum standard will be grouped in classes of 15 students each. Technical assistance will be provided for all district teachers by remedial resource staff and State Education Department: 1 resource staff for every 20 teachers. Monitoring, and evaluation at 6 month intervals conducted by State Department of Education.

DISTRICT PROFILE:

Enrollment: 3,000 Elementary students Class Size: 25 students p/class

Assessment Test Results: No. Above Min.Std. = 1,800 (60%)
No. Below Min.Std. = 1,200 (40%)

Old Staffing Pattern: 120 teachers, 4 resource staff (1 per 30 teachers).

$$\frac{3{,}000}{25} = 120; \qquad \frac{120}{30} = 4$$

Revised Staffing Pattern: 152 teachers, 7.6 resource staff

regular students	remedial students	resource staff
$\frac{1{,}800}{25} = 72$	$\frac{1{,}200}{15} = 80$	$\frac{152}{20} = 7.6$

Salary Costs, Old Staffing Pattern: $1,636,028.00

120 teachers	x	$13,103	$1,572,360.00
4 resource	x	$15,917	$ 63,688.00
		Total	$1,636,028.00

Salary Costs, New Staffing Pattern:

152 teachers	x	$13,103	$1,991,656.00
7.6 resource	x	$15,917	$ 120,969.20
			$2,112,625.20

Increase in Salary Costs: $476,597.20
The district would be eligible for $476,597 in State aid to cover increased costs.

NOTE: Salary levels selected for illustration purposes only. Teachers' salary is midpoint of State minimum and maximum at the 4 year level. Resource staff salary is 1976-77 State mean, remedial reading specialist.

Table 7

SECONDARY LEVEL, CLASSES GROUPED BY SUBJECT AREA (Alternative D)

PROGRAM TYPE: Class size reduced for students below minimum standard in three subject areas. Remediation conducted in three designated courses as part of regular classes.

DESIGNATED CLASSES:

(1) English-Literature, (2) Mathematics, (3) Social Studies-History, (4 instructional periods per day).

CONDITIONS: A basic core curriculum with add-on options will be utilized. Students below minimum standard will be placed in classes no larger than 15 students each in three major subject areas. Class size in non-designated minor courses will remain the same. Technical assistance for all district teachers will be provided by remedial resource staff and State Education Department: 1 resource staff for every 20 teachers. Monitoring and evaluation at 6 month intervals will be conducted by the State Education Department.

DISTRICT PROFILE:

Enrollment: 2600 Secondary students Class Size: 25 students p/class

Assessment Test Results: No. Above Min.Std. = 1,742 (67%)
No. Below Min.Std. = 858 (33%)

Old Staffing Pattern (Designated Courses Only): 25.74 teachers,
0 resource staff

$$\frac{858}{100} = 8.58 \times 3 = 25.74$$

New Staffing Pattern (Designated Classes Only): 42.9 teachers
2.15 resource staff

$$\frac{858}{60} = 14.3 \times 3 = 42.9$$

$$\frac{42.9}{20} = 2.145$$

Staff Positions Added: 17.16 teachers
2.15 resource staff (for designated classes only)
Additional resource staff entitlement calculated separately using district-wide staffing data.

The District in the above example would become eligible for State aid to fund the new positions. The State could use the district's actual salary scale or State averages as a base. The number of additional resource staff for non-designated classes the district was entitled to might be limited to avoid rewarding districts with unusually large numbers of teachers on staff.

CONCLUSION

The Public School Education Act of 1975 designated the State Compensatory Education Fund as the means of financing remedial and preventive programs in communications and computation skills. The additional cost factor, which determines the amount of State aid each district receives for eligible pupils, was developed when the State program was an appendage, or add on to Title I and is generally considered outmoded. The .11 cost factor is the lowest of the 16 major additional cost categories, but affects more students than any of the others. The inadequate funding the current cost factor generates may prevent most districts from making substantial progress towards improving pupil proficiency levels.

The SDOE has not conducted a scientific analysis of the actual costs of providing remedial and preventive services in reading or math, nor has it recommended adoption of a more realistic funding formula. Consequently, school districts are forced to design programs according to what services the per student allowance will buy rather than what is required to meet students' educational needs.

Compensatory education has never been a popular program. It has had a minority and urban identity since the advent of Federal Title I programs and that image persists to this day. While not all compensatory education pupils are urban or minority, the majority of them can be linked to some negative or unpopular group identity if one looks long and hard enough. In the minds of some observers they become syonomous with Banfield's infamous "undeserving poor".

In 1977-78, compensatory education pupils were only 30% of all enrolled students in New Jersey. If one is inclined to think in terms of educational "triage" an expendable 30% may be acceptable, considering 70% perform adequately. Most people, at least publicly, probably find such arguments appalling, but the idea of an expendable percentage cannot be dismissed easily. Educators often speak of being "unable to salvage everyone", as if there is some generally acceptable success rate that serves as a goal.

The labor economics concept of the "residual poor", which affirms that there will always be a segment of the population that is poverty stricken, may have an educational counterpart: the residual illiterate. The burning question is whether or not any of the decision-makers in the SDOE think in terms of an acceptable expendable percentage. The answer will determine the future of compensatory education in New Jersey.

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APPENDIX A
New Jersey State Compensatory Education Guidelines
Selected Sections

State of New Jersey

DEPARTMENT OF EDUCATION

DIVISION OF SCHOOL PROGRAMS

GUIDELINES FOR THE PLANNING AND IMPLEMENTATION OF NEW JERSEY STATE COMPENSATORY EDUCATION PROGRAMS

The guidelines for the State Compensatory Education (SCE) program are designed to assist local districts in the planning and operation of their programs. The information requested in the application follows directly from the regulations adopted by the State Board of Education. The relevant provisions of the New Jersey Administrative Code are included in the guidelines for your ready reference.

CONTENTS

New Jersey Administrative Code Provisions..... 1
Instructions for Completing Application..... 6
Application Forms
Appendix A: Interim Guidelines
for Establishment of Minimum
Levels of Pupil Proficiency

NEW JERSEY ADMINISTRATIVE CODE
EDUCATION
Title 6

REVISIONS RELATED TO STATE COMPENSATORY EDUCATION PROGRAM

NJAC 6:8-1.1
6:8-3.4
6:8-3.8
6:39-1.4

ADOPTED BY THE STATE BOARD OF EDUCATION ON

JUNE 1, 1977

NOTE: These amendments were filed with the Division of Administrative Procedure, Department of State, on June 1, 1977, and effective on the same date.

6/1/77

Deletions are indicated in brackets; new material is underscored.

NEW JERSEY ADMINISTRATIVE CODE

TITLE 6

EDUCATION

Revisions Related to State Compensatory Education Program

SUBTITLE B. COMMISSIONER OF EDUCATION
CHAPTER 8. THOROUGH AND EFFICIENT SYSTEM OF FREE PUBLIC SCHOOLS
AUTHORITY: N.J.S.A. 18A:7A-1 ET SEQ.

SUBCHAPTER 1. DEFINITIONS

6:8-1.1 Words and phrases defined

The following definitions are to be inserted alphabetically -- the existing list remains the same.

"Minimum levels of pupil proficiency" means standards established pursuant to N.J.S.A. 18A: 7A-6 in grades where statewide testing takes place; and State approved uniform levels of achievement in grades where State testing does not take place.

"Preventive program" means programs designed to prevent regression in the basic areas of communication and computational skills.

"Regular school program" means curriculum content and materials, instructional activities, services and staff training designed to address the learning needs of all students adopted annually by each district board of education funded by local resources and state equalization aid.

"Remedial program" means programs designed to improve the level of pupil proficiency in the basic areas of communication and computational skills.

"Supplemental program for State compensatory education" means instructional or related services provided over and above the regular school program which are funded in whole or in part by State compensatory education funds.

SUBCHAPTER 3. STANDARDS AND PROCEDURES FOR ESTABLISHING EDUCATIONAL PLANS

6:8-3.4 **Assessment**

(a) Pupil needs shall be assessed by teaching staff members to determine pupil attainment of educational objectives. Procedures for such assessment shall include but not be limited to teacher observation, parental or guardian interview, formal and informal evaluation techniques, cumulative pupil records, student performance data collected through local testing programs which meet State criteria, [and] State testing results and visual, auditory, and/or medical examination. Pupil identification required by N.J.A.C. 6:8-3.8 (Pupil minimum proficiency levels and preventive and remedial programs in communication and computational skills) shall be determined as part of this assessment of pupil needs.

6:8-3.8 Pupil minimum proficiency levels and preventive and remedial programs in communication and computational skills.

[(a) The district board of education, after consultation with the chief school administrator and teaching staff members, shall establish reasonable pupil minimum proficiency levels in the basic communication and computational skills.]

[(b)] (a) Each pupil shall be assessed, upon entrance into the educational system and annually thereafter, to identify pupils not meeting minimum proficiency levels. Such assessment shall be part of the total assessment procedure set forth in Section 4 of this Subchapter. In instances of student transfers, assessment records shall be forwarded from the previous school or district to the school or district in which the student is newly enrolled.

[(c)] (b) Preventive, and remedial programs, supplemental to the regular school program, shall be established. Application for and approval of these State compensatory education programs shall [include] be based upon the following:

1. [Programs to assist those] Enrollment of all pupils [(defined as a "State compensatory education pupil") performing below the established minimum levels of pupil proficiency in the basic areas of communication and computational skills] who have academic, social, economic, or environmental needs that prevent them from succeeding in the regular school program in appropriate preventive or remedial programs up to eligibility levels determined by the Department of Education, based upon the severity of academic need as measured by student performance on the statewide assessment instruments and those students

provided for in N.J.A.C. 6:39-1.4(b), and based upon the severity of socio-economic need as measured by appropriate income and related indicators, and, documented by the needs assessment conducted pursuant to N.J.A.C. 6:8-3.4(a);

2. Procedures for the screening of currently and newly enrolled pupils in order to determine whether or not they should be enrolled in preventive[and] or remedial programs. These procedures should include those diagnostic measures which[could be] are used to predict the relevant learning difficulties and needs;

3. Instructional and related activities and services, supplemental to the regular school program[to meet] and based upon identified priority pupil needs;

4. Procedures to provide[0]on-going communication between teaching staff members and parents or guardians of[compensatory]pupils participating in State compensatory preventive and remedial[educational] programs;

5. Evaluation procedures which measure[compensatory]pupil[achievement] gains in basic skills proficiency related to preventive and remedial[educational]program objectives and standards and to statewide standards in communication and computational skills;

6. Evaluation of the effectiveness of State compensatory preventive and remedial educational programs in terms of pupil gains in basic skills proficiency and other relevant indicators;

7. A detailed budget explaining expenditures for administration, instructional, paraprofessional and clerical personnel, instructional materials and supplies, equipment, attendance, staff training, health and community services;

8. Assurance of maintenance of effort in the provision of the regular school program.

(c) Annually, on or before August 15, the Commissioner shall determine which applications for compensatory education programs are approved and so notify each local board of education.

(d) State compensatory education funds shall be calculated and distributed in accordance with N.J.S.A. 18A:7A-17 and N.J.S.A. 18A:7A-20, on the basis of actual enrollment in approved programs as of the last school day of September.

[(d)] (e) As part of the annual district and school classification procedure, the State Department of Education shall monitor the district board of education's [pupil minimum proficiency levels] programs and the rate of pupil growth in achievement with particular attention to services and preventive and remedial educational programs for the basic communication and computational skills.

[(e)] (f) The Department of Education shall conduct studies and evaluate findings biennially after the effective date of this Chapter in order to report the status of progress toward the attainment of pupil minimum proficiency levels [established by the district board of education] in basic communication and computational skills.

New material
is underscored

SUBTITLE G. DIVISION OF RESEARCH, PLANNING AND EVALUATION
CHAPTER 39. EVALUATION
AUTHORITY: N.J.S.A. 18A:7A-1 ET SEQ.

SUBCHAPTER 1. STATEWIDE ASSESSMENT

6:39-1.4 Minimum levels of pupil proficiency

(a) The State Board of Education, after consultation with the Commissioner shall establish uniform statewide standards of pupil proficiency in basic communication and computational skills on the statewide assessment instruments pursuant to N.J.S.A. 18A:7A-6.

(b) For those grades not administered the statewide assessment instruments, the Department of Education shall establish equivalent standards of pupil proficiency on tests which measure performance in basic communication and computational skills and meet State criteria.

(c) All pupils performing below the established minimum levels of pupil proficiency in basic communication skills, as determined under 6:39-1.4(a) and (b), shall be provided appropriate instructional services according to the district's basic skills improvement plan, pursuant to N.J.S.A. 18A:7A-6, with the following exceptions:

1. The needs assessment conducted pursuant to N.J.A.C. 6:8-3.4(a) clearly demonstrates such enrollment is unnecessary, or

2. The needs assessment conducted pursuant to N.J.A.C. 6:8-3.4(a) clearly demonstrates enrollment of a pupil above minimum levels of pupil proficiency is necessary.

APPENDIX B

Calculating State Aid For Categorical Programs In New Jersey

Calculating State Aid For Categorical Programs In New Jersey

Categorical Aid Profile, District Z

Aid Category (A)	Eligible Students-Units (B)	Additional Cost Factor (C)	Average Net Cost Per Pupil (D)	Amount of State Aid (E)
Visually Handicapped	45	1.91	$1506	$129,440.70
Emotionally Disturbed	100	1.27	$1506	$191,262.00
Trainable	50	0.95	$1506	$ 71,535.00
Chronically Ill	12	0.85	$1506	$ 15,361.20
State Compensatory Education	2,300	0.11	$1506	$381,018.00
		Total Categorical State Aid, District A:		$788,616.90

Categorical Aid Equation:

Eligible Students or Units		Additional Cost Factor		Average Net Cost Per Pupil		Amount of State Aid to District
	X		X		=	

(B X C) X D = E